

AMENDMENTS TO THE ABSTRACT

A method of producing a semiconductor device wherein an already formed opening portion inner wall of an ~~organic-based~~organic-based interlayer insulation film is prevented from changing in quality or corroding when performing etching on another organic material. The production method includes a step of depositing ~~organic-based~~organic-based interlayer insulation films (4, 6), a step of forming an opening on the ~~organic-based~~organic-based interlayer insulation films (4, 6), and a step of silylating a wall surface portion of the ~~organic-based~~organic-based interlayer insulation films (4, 6) exposed in the opening portion for reforming (forming reformed layers (4a, 6a) by silylation). A more preferable production method further includes a step of forming protective layers (4b, 6b) including an ~~inorganic-based~~organic-based insulation material on a surface of the silylated opening portion wall surface.